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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,083	07/14/2000	Jin-Meng Ho	03493.00078	5573
26652	7590	11/01/2005	EXAMINER	
AT&T CORP. P.O. BOX 4110 MIDDLETOWN, NJ 07748			BLOUNT, STEVEN	
			ART UNIT	PAPER NUMBER
			2668	

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/28/2005 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 7, the first occurrence of "the VSID" lacks antecedent basis.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 – 4, 6, 8 – 14, and 16 - 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,631,122 to Arunachalam et al in view of U.S. patent 6,934,752 to Gubbi.

With regard to claim 9, Arunachalam et al teaches a virtual stream of information (col 4, lines 50+) in a wireless network 204 (figure 2) between a QOS agent/manger 205 ("interlinked", see col 4, line 43) and endsystems 209 (col 4, line 52) wherein the agent/manager are both in the same communication set. Arunachalam et al also teaches that forward path processes occur on layers 1 – 3 in col 4 lines 53+, and also that mapping IP flows to lower (layers 2/1) occurs. See the discussion of the functions which occur on the downlink direction in col 8 lines 55+. See also the discussion of the LAC/MAC layer in col 6 line 5. In column 4, lines 23+, it is stated that "The QoS Agent provides the following capabilities of Diff-Serv's bandwidth broker: Intra-domain as well as inter-domain service level negotiation; per-domain admission control, *resource reservation*; and per-domain flow marking policy management and enforcement" (emphasis added). Arunachalam et al does not, however, teach the use of both a distributed contention scheme, and a centralized contention scheme.

Gubbi teaches, in a wireless lan system extremely similar to that of Arunachalam et al wherein bandwidth is negotiated (col 6 lines 8+) and QOS is provided to the multimedia streams (col 6 lines 15+), and using centralized and distributed control schemes. See col 6 lines 15+.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided Arunachalam with both centralized and distributed contention schemes, in light of the teachings of Gubbi in order to provide a method of effectively controlling the flow of information in the system.

With regard to the following claims (hereinafter referred to as "CI"), note the following: CI 2 - 3: VSID identifier: see the "unique identifier" LFI in col 6, line 8 and note that it is well known that IP packets of the type used in Arunachalem et al use source and destination addresses; CI 4: MAC sublayer: see col 4, line 54 (layer 2) and the LAC/MAC layer discussed throughout; CI 6: It would be obvious for the member that sets up the connection to tear it down; CI 8: see the rejection of claim 6 above; CI 10: PC/non-PC is shown in the figures, and downlink is mentioned in the patent (col 8); CI 11: uplink is mentioned in col 10; CI 12: note the multiple mobile systems associated with member 205 in figure 2 (ie, members 209); CI 13 – 14: multicast/unicast are well known methods of transmission of which it would be obvious to utilize in Arunachalam et al; CI 16: see the discussion above, and note that in col 8, lines 7+, it is stated that a tag is assigned by a wireless QoS agent to a flow; and that in lines 13+, it is stated that the logical flow ID "associates a particular service class with a flow; and (ii) it helps in routing the flow to its allocated resource entities. See also col 4, lines 60+; CI 17 – 22: note the multimedia application discussed in the abstract, wherein these are often bursty data; CI 23: token bucket values are obvious and well known measures of data; CI 24: 204 in figure 2 is a WLAN.

5. Claim 16 is rejected under 35 U.S.C. 103(a) as being obvious over the Applicants Admitted Prior Art (AAPA) in view of U.S. patent 6,542,490 to Abmadvand et al and U.S. patent 6,934,752 to Gubbi.

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AAPA, on page 4, lines 6+, states that "Unfortunately, wireless local-area networks (WLANS), such as currently specified by IEEE P802.11/1999, do not support QoS transport and operate on a distributed contention or simplified polling basis."

AAPA, however, does not teach frame classification as a solution to this problem, or the use of a VSID, or the use of a centralized contention scheme.

Ahmadvand et al teaches frame classification based on QoS (see abstract and col 7 lines 10+).

Gubbi teaches using centralized contention control (see discussion above) as well as the use of a frame identifier (see col 19 lines 13+).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have solved the problem stated in AAPA by using frame classification (based on QOS) in light of the teachings of Abmadvand et al, and to have further used a frame identifier and centralized contention scheme in AAPA/Abmadvand et al, in light of the teachings of Gubbi, in order to provide proper flow control in a wireless WLAN.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being obvious over the Applicants Admitted Prior Art (AAPA) in view of U.S. patent 6,934,752 to Gubbi.

AAPA teaches the problem discussed above, but does not teach the solution to comprise sourcing a QOS (claim 9, line 3) or using both a distributed and a centralized contention scheme. These are taught in Gubbi, as discussed above. It would have been obvious to one of ordinary skill in the art at the tie of the invention to have sourced the QOS and used both distributed and centralized contention schemes in AAPA in light of the teachings of Gubbi in order to provide increased levels of flow control.

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7. Most of applicants arguments are moot in view of the new grounds of rejection.

With respect to Arunachalam et al operating in a WAN, applicants remarks are noted.

However, the modifying reference Gubbi operates in a WLAN. Also, the examiner believes that one of ordinary skill in the art would not find it terribly difficult to apply the teachings of Arunachalam et al (standing alone) to a smaller, WLAN system.

  
Ajit Patel  
Primary Examiner

SB



10/13/05